

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/046,232	SCHWAB ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christian L Fronda	1652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendments filed June 7, 2004, and August 17, 2004.
2. ☒ The allowed claim(s) is/are 21-25 and 36.
3. ☒ The drawings filed on 16 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

Art Unit: 1652

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jay Williams on August 26, 2004.

2. The application has been amended as follows:

- In claim 21, line 8, after the word "lyase"; insert the word "activity".
- In claim 21, line 10, after the word "lyase"; insert the word "activity".
- In claim 21, line 13, after the word "lyase"; insert the word "activity".

3. Applicants' arguments and amendments filed on June 7, 2004, and August 17, 2004, have been fully considered and are deemed to be persuasive to overcome the rejections previously applied. Rejections and objections not reiterated from the previous Office Action dated January 5, 2004, are hereby withdrawn. Specifically, the Examiner has withdrawn the rejection under 35 U.S.C. 101, 35 U.S.C. 112, 1st paragraph, and 35 U.S.C. 102(b) in view of the claim amendments, claim cancellations, and supporting arguments provided by the applicants.

Applicants have demonstrated that the claimed isolated nucleic acid encodes a functional hydroxynitrile lyase as evident by the results of activity assays illustrated in Examples 13 and 14 of the specification (see pp. 27-30).

The specification in combination with standard molecular biology techniques that are well known in the art enables one of ordinary skill in the art to determine the amino acid positions that can be changed without affecting enzyme activity, thus eliminating the need for any undue experimentation to make the claimed isolated nucleic acid having at least 95% identity with SEQ ID NO: 19 and encodes a protein having hydroxynitrile lyase activity.

### ***Allowable Subject Matter***

4. Claims 21-25 and 36 are allowed.

Art Unit: 1652

5. The following is an examiner's statement of reasons for allowance:


Applicants' invention is directed toward an isolated nucleic acid encoding a hydroxynitrile lyase , a vector comprising said nucleic acids, a host cell comprising said vector, and a method for making a hydroxynitrile lyase by culturing said host cell. The prior art neither teaches nor suggests an isolated nucleic acid encoding a hydroxynitrile lyase having the amino acid sequence of SEQ ID NO: 2 or an isolated nucleic acid having the nucleotide sequence of SEQ ID NO: 19.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian L Fronda whose telephone number is (571)272-0929. The examiner can normally be reached Monday-Friday between 9:00AM - 5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura N Achutamurthy can be reached on (571)272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLF



CHRISTIAN L FRONDA  
Examiner  
Art Unit 1652